DISASTER LESSONS

DT00 POOL SUPPLY FIRE

AMATEUR
RADIO.CA

POOL FIRE SCENARIO
AMATEUR RADIO ICS TRAINING

INSTRUCTOR NOTES
ASSIGNMENT 1
ASSIGNMENT 2
ASSIGNMENT 3
CONCLUSSIONS
NEWS REPORTS
EVALUATION

PART I – INSTRUCTOR NOTES

The pool supply fire scenario is a common occurrence and has led to several large-scale evacuations in North America in the last few years. This scenario is designed to develop the basic concepts that your members have learned in their basic ICS training and basic ICS scenarios.

INCIDENT COMMAND TRAINING

It is a requirement that all the attendees have completed at least Level 1 Incident Command Training BEFORE using these illustrations.

They should be familiar with the following forms:
ICS 201 Incident Objectives
ICS 202 Incident Briefing
SOPs – Standard Operating Procedures
Remote Locations – List of possible locations requiring communications

GOALS OF THIS TABLE-TOP TRAINING EXERCISE

The purpose of this training exercise is to apply the Incident Command Structure to the amateur radio response with emphasis on the following areas:

All disasters get better or get worse.
Even in the middle of a response, you must be making plans for things to get worse.
Spares are always a requirement.
How do we best utilize our limited AR resources before an emergency and during the emergency?
What types of planning need to be done before and during and emergency?
Consider how AR does not always fit cleanly into the ICS system.
Briefly demonstrate how emergencies and disasters are complex and long.

BACKGROUND TO THE SCENARIO

Training for emergencies and disasters is often unrealistic because the scenarios used “wouldn’t happen here” or are “made up” and don’t reflect reality. To overcome this, selections of real-life incidents have been chosen to illustrate the use of Incident Command and Amateur Radio in emergency response.

Swimming pool supply companies often hold stockpiles of chemicals used in the maintenance and treatment of pool water, including a chemical called HTH – which forms into poisonous chlorine gas when it comes in contact with water. Large evacuations often result when the water from firefighters reacts with this chemical to form poisonous chlorine gas. The gas may be raised into the atmosphere due to the heat of the fire, but normally falls back down and stays low the ground. Wind conditions are critical in determining evacuation zones. Symptoms may include eye, throat and lung irritation and these symptoms will be increased in those susceptible, such as asthmatics, or those nearby without proper protection, such as police officers directing traffic or public in the immediate neighbourhood.

PREPARATION MATERIALS

- The instructor will need copies of the various scenarios and actual incident articles to hand out for each attendee.
- The instructor will need maps of your city for each group of 5 – 7 people
- The instructor will need copies of the remote locations list from this package.
- Pick a likely location for a Swimming Pool Supply Store warehouse, or even better, find one in the Yellow Pages.
- You will need copies of the Incident Command Objectives Form 201 and the Incident Briefing Form 202. It is better to find out how to get hold of them on your own, now, rather than trying to find some during a disaster. They are available on the internet.
- You will need lots of blank paper.
- You will need a copy of your SOPs / OGs

GROUPS

Your work groups will split along lines of experience. The most experienced emergency communicators go into one group. The least experienced and newest members of the group will go into a second group. Putting experience with experience forces the less-experienced operators to go through the exercise without relying on those with experience or having more experienced operators dominate the group. This will also happen during disasters as less-experienced operators are often the only ones available or operator shortage turns them into supervisors.

Work groups should be three people at least and seven maximum to ensure everyone gets involved and to put pressure on the group with too many tasks and too many location and too few people to do the job. Welcome to reality!

ASSIGNMENT 1

INSTRUCTOR LEAD IN

- Introduce yourself
- Break into groups and distribute maps
- Ask for the MOST experienced and LEAST experienced person for each group.
- Select a “Planning Chief” for each group – the most experienced person
- Review the four Planning Section Units:
    - **Resource** - The Resource Unit Leader - (RUL) is responsible for maintaining the status of all assigned resources (primary and support) at an incident. This is achieved by overseeing the check-in/ out of all resources, maintaining a status-keeping system indicating current location and status of all resources, and maintenance of a master list of all resources (e.g., key supervisory personnel, primary and support resources, etc.).
    - **Situation** - The Situation Unit Leader - The collection, processing and organizing of all incident information takes place within the Situation Unit. The Situation Unit Leader (SUL) may prepare future projections of incident growth, maps and intelligence information.
    - **Demobilization** - The Demobilization Unit Leader - is responsible for developing the Incident Demobilization Plan. On large incidents, demobilization can be quite complex, requiring a separate planning activity. Note that not all agencies require specific demobilization instructions.
    - **Documentation** - The Documentation Unit Leader - is responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: Incident Action Plan (IAP), incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of the documents may originate in other sections. This unit shall ensure each section is maintaining and providing appropriate documents. The Documentation Unit will provide duplication and copying services for all other sections. The Documentation Unit will store incident files for legal, analytical, and historical purposes.
- Introduce the first scenario
- Indicate the location of the incident based on an actual company.
- Use “Ham 1”, “Ham 2” to designate the various amateurs

FIRE AT POOL SUPPLY

5 minutes instruction, 10 minutes group work, 10 minutes class presentation.

On your car radio, you hear that a two alarm fire has occurred at a warehouse holding swimming pool supplies. From other incidents, you know that these fires often have hazardous chemicals and mass evacuations occur. After a quick call on the radio and a few phone calls, you get five amateurs available and one is designated AR Incident Commander.

GROUP WORK

1. Mark on your map the location of the incident.
2. What is your recommendation to the IC on how to deploy the five operators?
3. What is your recommendation for the AR incident objectives and operational period?
4. How many nets do you run and for what purpose?
5. List all organizations and locations that might need AR communications.
6. Given your resources, which locations should be staffed now.
7. Are your members safe? What further information do you need to ensure they stay safe?
8. Prepare an ICS Form 202 Briefing
9. Include your recommendations for actions required if this gets worse.

YOU HAVE 10 MINUTES!

INSTRUCTOR FOLLOW-UP

- ○ Have the groups answer the nine questions. There are few wrong answers at this point! Ask where are the spares.
- ○ Who does the callout to activate AR?

SCENARIO RESULT:

In this particular case, the fire department handled the fire without any problem. There was no evacuation, to toxic cloud, and no loss of communications. The situation got better.

If you deployed anyone, it was probably a waste of time and, if anything, pissed off the Incident Commander for getting in the way of what was a routine event. Fires happen every day somewhere and this is what the fire department trains for.

INSTRUCTOR - POINTS TO BE MADE AT END OF CLASS DISCUSSION:

1. Not all fires result in disasters.
2. Things can get better or things can get worse. Just because this got better, it doesn't mean it can't get worse or that an Incident Command structure wasn't a good idea.
3. In exercises like this, we tend to assume things will get worse. In reality, we hear of routine fires and assume that they won't get worse.
4. Nobody has called AR out at this point.
5. Just because nobody mentioned a sign-in sheet doesn't mean you can ignore it. There won't be any reminders during a disaster. Which groups have a resource log showing names, call-signs and locations?
6. Personal logs and station logs need to be done right from the start. If you don't start doing it now, what makes you think you will suddenly remember to do them in a disaster!
7. Which groups recommended the callout of additional operators, even on a stand-by basis?

ASSIGNMENT 2

INSTRUCTOR LEAD IN

- Change Planning Chiefs for each group
- You now have 10 amateurs to work with

5 minutes instructions, 15 minutes for groups to discuss, 25 minutes general discussion.

The fire has now burned into the area holding the pool chemicals. Suddenly, chlorine gas is being released into the atmosphere and emergency personnel are suffering from inhalation of the fumes. With the situation deteriorating rapidly, the Incident Command has to make numerous critical decisions.

An evacuation is required and ordered for 2 km / 1 mile in all directions. An evacuation centre will have to be set up. Further alarms or mutual aid will be required to replace firefighters or to get additional manpower. 911 is getting calls from residents getting irritation from the air. One of your group has been contacted by a friend at the Red Cross or Salvation Army or Recreation Centre saying they need comms right away. You don't know if this is an official callout by your city or just for the one group.

SOMETHING is hitting the fan for everyone.

GROUP WORK

1. Mark on your map the location of the incident and the 2km / 1 mile zone
2. What is your recommendation to the IC on how to deploy the ten operators?
3. What is your recommendation for the AR incident objectives and operational period?
4. How many nets do you run and for what purpose?
5. List all organizations and locations that might need AR communications.
6. Given your resources, which locations should be staffed now.
7. Are your members safe? What further information do you need to ensure they stay safe?
8. Prepare an ICS Form 202 Briefing
9. Include your recommendations for actions required if this gets worse.

YOU HAVE 15 MINUTES!

INSTRUCTOR FOLLOW-UP

- Have the groups answer the nine questions.   Where are the spares?
- Who activated AR? Do you send someone to the ICP or EOC?
- Any recommendation on other remote locations from the instructor.
- Any discussion of amateur allocations from the instructor and what areas do you leave unstaffed?
- Formal station set-up uses three hams per station. Can this be done?
- What have you done to get more hams?

SCENARIO RESULT:

This scenario happened in August 2004 in the town of Conyers, Georgia, just outside Atlanta. In addition to the mile evacuation, every single emergency official for the city was out of town – watching for terrorism at the G8 conference at Sea Island, Georgia, about 250 miles away.

In the Atlanta fire, light winds resulted in the cloud going more up and only a one mile radio evacuation was required – several hundred people. An interstate highway was also closed resulting in morning rush hour chaos. The 4:30 A.M. fire was under control until a 7:00 explosion and huge fireball changed the situation. The Incident Commander had to pull back into a defensive role as it was too dangerous to get near. Over 100 firefighters were battling the blaze by the afternoon and the fire was expected to burn through the night – at least 24 hours or longer.

ASSIGNMENT 3

INSTRUCTOR LEAD IN

- Change Planning Chiefs for each group – use the LEAST experienced person.
- You now have 15 amateurs to work with – normally you get about 5% of your group available to respond at any time.

10 minutes instruction, 15 minutes for groups to discuss, 30 minutes general discussion.

In September 1988, what started as a minor chemical accident at a swimming pool supply plant near Los Angeles suddenly got out of control. A highly toxic gas was released over a six square mile area, forcing 25,000 people from their homes within a matter of hours. Over the next few hours, fire engines, police cars, emergency medical technicians, the mayor, the county emergency services director, and the hazardous materials response team arrived to assist with management and cleanup duties. In both the Atlanta and Los Angeles incidents, the wind was less than 10 miles and hour and the smoke was going straight up.

Local, State/Provincial, National governments would all respond, along with various agencies for transport, health, water quality, weather, Haz-Mat, chemical companies, etc. At a Florida incident, in fact, some 200 officials responded to the scene: this figure did not include the 21 workers handling the actual cleanup!

GROUP WORK

1. Mark on your map the location of the incident and the 4km / 2 mile zone
2. What is your recommendation to the IC on how to deploy the ten operators?
3. What is your recommendation for the AR incident objectives and operational period?
4. How many nets do you run and for what purpose?
5. List all organizations and locations that might need AR communications.
6. Given your resources, which locations should be staffed now?
7. Are your members safe? What further information do you need to ensure they stay safe?
8. Prepare an ICS Form 202 Briefing
9. Include your recommendations for actions required if this gets worse.

YOU HAVE 15 MINUTES!!!

INSTRUCTOR FOLLOW-UP

- Have the groups answer the nine questions. Where are the spares?
- Any recommendation on other remote locations from the instructor.
- Any discussion of amateur allocations from the instructor and what areas do you leave unstaffed?
- Formal station set-up uses three hams per station. Can this be done?
- What have you done to get more hams?
- What are you going to do with the 18 non-trained hams coming on your frequencies offering to help?
- What do you do with the ham club 200 miles away that wants to help?

SCENARIO RESULT:

Some characteristics of the Los Angeles incident include:

- The Incident Command Post had to be evacuated to a more distant location – TWICE! It then had to be relocated as unusual terrain and wind conditions pushed pools of chlorine gas to where the Command Post had located. After setting up the ICP a second time, changing conditions forced it to move again.

- The Incident Commander and several firefighters were overcome and had to be treated and evacuated to hospital.

- A hospital was within the evacuation area.

-Difficulties occurred in locating victims and in finding a hospital or reception center to receive them.

- Reception centers were uncertain about who was to obtain food, medical supplies, and bedding for evacuees.

- 911 lines were overloaded.

- The Emergency Operating Center was inundated with so many citizen calls that communications among emergency organizations were paralyzed.

- Medical personnel were unfamiliar with the treatment and effects of the hazardous material involved.

- Schools, hotels and motels all had to be used for temporary shelter.

- A large parking lot at the race track became the staging area in case larger evacuations were necessary.

- Busses for evacuation could not use bus drivers due to the toxic gas in the air. Firefighters wearing air units had to drive the busses to get evacuees out of the area. Clark County School District made school busses available and 50 off-duty firefighters were called in to drive them. Each bus was provided with a SCBA (breathing kit)

- All hospitals in the metropolitan area were alerted to stand by for large numbers of patients, and approximately 250 were examined in emergency rooms.

- Several police officers, who were exposed while evacuating residents, directing traffic and performing other functions in the area, were among those patients.

- Individuals with asthma and other breathing problems were severely affected by even minor exposure to the gas and accounted for most of the hospital admissions.

PART 8 – CONCLUSSIONS

Here we covered more of the planning role of ICS – you can see there's a lot to it.

You can't do it all by yourself. You are going to have to delegate people to take over planning and logistics and finance.

We didn't talk about logistics at all – equipment, food, power, batteries, chargers, antennas, monitoring commercial frequencies, rain gear, hot drinks, water. If you think planning has a lot to think about, you should see the list for logistics! What about vehicles to supply logistics? Spares? More operators.

Finance / Admin is equally important and rarely discussed. Who does the documentation? Who takes the station logs? Who has the sign in sheets? To do a GREAT job of ICS, you have to have these covered as well.

Out of town help is almost always required when you have a disaster. What are your groups plans to bring in outside help? Do you have maps or guides for these people? Have you met them before? Are they qualified? Why aren't you answering some of these questions now, rather than in a disaster?

On the reverse, if you had been called in to help in Conyers, what would YOU need for your briefing?

Things can always get worse. In the Conyers fire and evacuation, emergency officials were 250 miles away for the International G8 Conference on Georgia's Sea Island. Many times, key people are away. That is why we have the newer members tackle the hardest part of the exercise.

The local amateurs were doing a drill and had already established communications between Atlanta and Sea Island and handled priority traffic as well as the drill. Their link was considered more reliable than the phones at first.

In an illustration of the need to advise surrounding hams, three counties provided 25 hams during the emergency.